UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,426	06/24/2005	Tae Hyoung Kim	2080-3390	4238

35884   7590   01/29/2009
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ART UNIT	PAPER NUMBER
2425	

NOTIFICATION DATE	DELIVERY MODE
01/29/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _19 December 2008_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-21_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-21_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _1/16/2009_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

12/19/2008 has been entered.

Response to Arguments

2.   Applicant's arguments filed 12/19/2008 with respect to claim 1 have been

considered but are moot in view of the new ground(s) of rejection. See the new

rejection below.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   **Claims 1-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over US

Patent 7,269,330 B1 to Iggulden (hereafter referenced as Iggulden) in view of US

Patent 5,333,091 to Iggulden (hereafter referenced as Iggulden'091).

Regarding **claim 1**, "a method of dynamically searching video contents" reads on the method in a video playback unit to identify selected broadcast segments (abstract and col.10, lines 20-30) disclosed by Iggulden and represented in Fig. 3.

As to "the method comprising: determining a normal replay section and a fast forward replay section based on shot index information and a current replay location" Iggulden discloses (col.5, lines 1-7) that after selected segments information identified by playback device, it plays or skips these selected segments based on the information provided for them.

As to "replaying the video contents from the current replay location at speeds corresponding to the determined normal replay section and fast forward replay section" Iggulden discloses (col.5, lines 14-18) that once the signature pattern for selected segments matches with the stored signature patterns, it immediately identifies it and based on this information it either skips or plays the video. Iggulden further discloses (col.5, lines 21-40) that if the signature pattern does not match with the selected segment then it stores this information for future use.

Iggulden meets all the limitations of the claim except "a normal replay section and a fast forward replay section based solely on shot index information and a current replay location, and replaying the video contents at speeds corresponding to the determined normal replay section and fast forward replay section." However, Iggulden'091 discloses (col.2, lines 48-52) that the during

television signal recording, data is received with respect to the time of occurrence/blank frames (shot index information) and stored in the device as represented in Fig. 3. Iggulden'091 further discloses (col.4, lines 28-52) that based on this time occurrence and blank frames, device analyzes and classifies it as either a program or a commercial and based on this classification it either plays or fast forwards it. Iggulden'091 further discloses (col.8, line 43-col.9, line 23) that based on the time code of recorded program (current replay location), it plays the program at speed according to play section or forward section as represented in Fig. 7(a)(b). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Iggulden's system by using shot index information to play/fast forward video content as taught by Iggulden'091 in order to automatically skip commercial and play program without any user input.

Regarding **claim 2**, "the dynamic method wherein replaying the video contents from the current replay location comprises: fast-forwarding the video contents from the current replay location at a speed corresponding to the fast forward replay section" Iggulden discloses (col.5, lines 14-18) that after the signature pattern for selected segments matches with the stored information for selected segments, it skips the video segment during the playback. As to "replaying the video contents at a normal speed corresponding to the normal replay section when a start location of the normal replay section is reached"

Iggulden discloses (col.10, lines 35-40) that after the end of advertisement segment, system immediately ramps up the audio/video component of the program to play the video at normal speed as represented in Fig. 3.

Regarding **claim 3**, "the method wherein the normal replay section is determined based on a start location and length information obtained from the shot index information" Iggulden discloses (col.5, lines 25-38) that the received segment is analyzed based on the lengths and start of next program segment to determine if it's a selected segment as represented in Fig. 3.

Regarding **claim 4**, "the method further comprising, audio contents as well as the video contents at a normal speed in the normal replay section" Iggulden discloses (col.10, lines 35-40) that after the end of advertisement segment, system immediately ramps up the audio/video component of the program to play the video at normal speed as represented in Fig. 3.

Regarding **claim 5**, "the method wherein the shot index information comprises section information in a stream for an individual shot that is a physical editing unit of the video contents" Iggulden discloses (col.9, lines 60-66) that the memory unit stores the advertisement segment information from a video stream as represented in Fig. 3.

Regarding **claim 6**, "the method further comprising switching a replay mode from a normal replay to a fast forward replay in response to a user request for the fast forward replay during the normal replay in a dynamic search mode; a user request for a dynamic search function during the normal replay; or completion of replaying a predetermined amount of the video contents at a normal speed in the dynamic search mode" Iggulden discloses (col.25, line 61-col.26, line 3) that the user has ability to fast forward the commercial during the normal play.

Regarding **claim 7**, "the method further comprising automatically switching a replay mode from a normal replay to a fast forward replay after a predetermined amount of the video contents has been replayed at a normal speed during a dynamic search" Iggulden discloses (col.5, lines 47-52) that after watching a television program, when selected segment is encountered, it automatically skips it. Iggulden further discloses (col.13, lines 17-32) that at the predetermined time periods, commercials are recorded/skipped as represented in Fig. 4. As to "the predetermined amount of the video contents replayed at the normal speed corresponds to an entire selected shot" Iggulden discloses (col.9, lines 64-66) that upon detection of next event marker for regular program segment, skipping for advertisement is terminated and plays at normal mode.

Regarding **claim 8**, "the method further comprising automatically switching

a replay mode from a normal replay to a fast forward replay after a

predetermined amount of the video contents has been replayed at a normal

speed during a dynamic search" Iggulden'091 discloses (col.2, lines 34-44, 56-

63) that during the presence of a commercial in a TV signal, system

automatically scanned past at high speed. As to "the predetermined amount of

the video contents replayed at the normal speed is an amount designated in a

first half of a selected shot regardless of a shot length" Iggulden'091 further

discloses (col.2, lines 63-66) that the VCR returns to the normal play mode when

the tape reaches the beginning portion of video signal. In addition, same

motivation is used as to reject claim 1.

Regarding **claim 9**, "the method further comprising switching a replay

mode from a fast forward replay to a normal replay in response to a user request

for the normal replay during the fast forward replay in a dynamic search mode or

when a replay location of the video contents reaches a start location of a shot in

which the normal replay section is long during the fast forward replay in the

dynamic search mode" Iggulden'091 discloses (col.2, lines 63-66) that the VCR

returns to the normal play mode when the tape reaches the beginning portion of

video signal. Iggulden'091 further discloses (col.4, lines 39-52) that VCR is

automatically commanded back into the play mode from fast forward mode when

it reaches the start point of the next program location. In addition, same

motivation is used as to reject claim 1.

Regarding **claim 10**, "the method further comprising automatically

switching a replay mode from a fast forward replay to a normal replay during the

fast forward replay for a dynamic search, and wherein the current replay location

of the video contents is a start location of the normal replay" Iggulden'091

discloses (col.4, lines 39-42) that the starting point of video contents is a starting

point of event A in normal play mode. As to "a shot to be replayed at a normal

speed is selected as a shot with a length larger than a predetermined threshold,

wherein the length is calculated based on shot section information in the shot

index information, the shot section information comprising a start location and an

end location" Iggulden discloses (col.5, lines 25-38) that an analysis is done

based on the length of the video contents to distinguish between a normal play

mode and fast forward mode. In addition, same motivation is used as to reject

claim 1.

Regarding **claim 11**, "the method further comprising automatically

switching a replay mode from a fast forward replay to a normal replay during the

fast forward replay for a dynamic search, and wherein the current replay location

of the video contents is a start location of the normal replay" Iggulden'091

discloses (col.4, lines 39-42) that the starting point of video contents is a starting

point of event A in normal play mode. As to "a shot to be replayed at a normal speed is selected as a shot of which a division result is larger than a predetermined threshold, wherein the division result is obtained by dividing a length calculated based on shot section information in the shot index information by an average of lengths of surrounding shots, the shot section information comprising a start location and an end location" Iggulden discloses (col.5, lines 25-38) that an analysis is done based on the length of the video contents to distinguish between a normal play mode and fast forward mode. In addition, same motivation is used as to reject claim 1.

Regarding **claim 12**, "the method wherein replaying the video contents is automatically initiated at a normal speed during the fast forward replay when the video contents have been fast-forwarded for more than a predetermined period defined in a dynamic search" Iggulden discloses (col.13, lines 48-61) that if the second event marker does not occur at predetermined time period, then the system rejects the current fast forward mode and goes back to normal mode.

Regarding **claim 13**, "a method of dynamically searching video contents" reads on the method in a video playback unit to identify selected broadcast segments (abstract and col.10, lines 20-30) disclosed by Iggulden and represented in Fig. 3.

As to "the method comprising: determining a normal replay section based on shot index information and a current replay location of the video contents when a dynamic search is requested during a video browsing" Iggulden discloses (col.5, lines 1-7) that after selected segments information identified by playback device, it plays or skips these selected segments based on the information provided for them.

As to "fast-forwarding the video contents at a high speed from the current replay location to a start location of the normal replay section" Iggulden discloses (col.5, lines 14-18) that after the signature pattern for selected segments matches with the stored information for selected segments, it skips the video segment during the playback.

As to "replaying the video contents at a normal speed in the normal replay section when a replay location of the video contents is the start location of the normal replay section" Iggulden discloses (col.10, lines 35-40) that after the end of advertisement segment, system immediately ramps up the audio/video component of the program to play the video at normal speed as represented in Fig. 3.

As to "repeating determining, fast-forwarding, and replaying when replaying the video contents in the normal replay section is completed" Iggulden discloses (col.16, lines 20-24) that these steps are repeated for the video contents.

Iggulden meets all the limitations of the claim except "a normal replay section and a fast forward replay section based solely on shot index information and a current replay location." However, Iggulden'091 discloses (col.2, lines 48-52) that the during television signal recording, data is received with respect to the time of occurrence/blank frames (shot index information) and stored in the device as represented in Fig. 3. Iggulden'091 further discloses (col.4, lines 28-52) that based on this time occurrence and blank frames, device analyzes and classifies it as either a program or a commercial and based on this classification it either plays or fast forwards it. Iggulden'091 further discloses (col.8, line 43-col.9, line 23) that based on the time code of recorded program (current replay location), it plays the program at speed according to play section or forward section as represented in Fig. 7(a)(b). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Iggulden's system by using shot index information to play/fast forward video content as taught by Iggulden'091 in order to automatically skip commercial and play program without any user input.

Regarding **claim 14**, "the method further comprising replaying, in the normal replay section, audio contents as well as the video contents at the normal speed in the normal replay section" Iggulden discloses (col.10, lines 35-40) that after the end of advertisement segment, system immediately ramps up the

audio/video component of the program to play the video at normal speed as represented in Fig. 3.

Regarding **claim 15**, "the method wherein the shot index information comprises section information in a stream for an individual shot that is a physical editing unit of the video contents" Iggulden discloses (col.9, lines 60-66) that the memory unit stores the advertisement segment information from a video stream as represented in Fig. 3.

Regarding **claim 16**, "the method further comprising switching a replay mode from a normal replay to a fast forward replay in response to: a user request for the fast forward replay during the normal replay in a dynamic search mode; a request for a dynamic search function during the normal replay; or completion of replaying a predetermined amount of the video contents at the normal speed in the dynamic search" Iggulden discloses (col.25, line 61-col.26, line 3) that the user has ability to fast forward the commercial during the normal play.

Regarding **claim 17**, "the method further comprising switching a replay mode from a fast forward replay to a normal replay in response to a user request for the normal replay during the fast forward replay in a dynamic search mode or when a replay location of the video contents reaches a start location of a shot in which the normal replay section is long during the fast forward replay for the

dynamic search" Iggulden'091 discloses (col.2, lines 63-66) that the VCR returns

to the normal play mode when the tape reaches the beginning portion of video

signal. Iggulden'091 further discloses (col.4, lines 39-52) that VCR is

automatically commanded back into the play mode from fast forward mode when

it reaches the start point of the next program location. In addition, same

motivation is used as to reject claim 13.

Regarding **claim 18**, "an apparatus comprising a function of dynamically

searching video contents" reads on the video playback unit to identify selected

broadcast segments (abstract and col.10, lines 20-30) disclosed by Iggulden and

represented in Fig. 3.

As to "the apparatus comprising: a media storage unit for storing the video

contents" Iggulden discloses (col.14, lines 20-24) that the advertisement along

with program events are stored in memory unit as represented in Fig. 1 (element

128).

As to "an index storage for storing shot index information of the video

contents" Iggulden discloses (col.14, lines 54-58) that memory unit stores

temporary signature, time of the signature information as represented in Fig. 1

(element 150).

As to "a controller for determining a normal replay section and a fast

forward replay section based on the shot index information, and replaying the

video contents according to the determined sections" Iggulden discloses (col.9,

lines 43-54) that the control unit handles all the operations of the playback unit as represented in Fig. 1 (element 126).

As to "an output unit for outputting the replayed video contents at speeds corresponding to the determined normal replay section and fast forward replay section" Iggulden discloses (col.9, lines 55-59) that the control unit sends the video signal to monitor as represented in Fig. 1 (element 104).

Iggulden meets all the limitations of the claim except "an index generator for generating the shot index information of the video contents." However, Iggulden'091 discloses (col.6, lines 61-66) that the analyzed data with classification information for the video signal is stored in memory so that control signals can be generated for controlling the VCR. As to "a normal replay section and a fast forward replay section based solely on shot index information and a current replay location and replaying the video contents at speeds corresponding to the determined normal replay section and fast forward replay section" Iggulden'091 discloses (col.2, lines 48-52) that the during television signal recording, data is received with respect to the time of occurrence/blank frames (shot index information) and stored in the device as represented in Fig. 3. Iggulden'091 further discloses (col.4, lines 28-52) that based on this time occurrence and blank frames, device analyzes and classifies it as either a program or a commercial and based on this classification it either plays or fast forwards it. Iggulden'091 further discloses (col.8, line 43-col.9, line 23) that based on the time code of recorded program (current replay location), it plays the

program at speed according to play section or forward section as represented in

Fig. 7(a)(b). Therefore, it would have been obvious to one of the ordinary skills in

the art at the time of the invention to modify Iggulden's system by using shot

index information to play/fast forward video content as taught by Iggulden'091 in

order to automatically skip commercial and play program without any user input.

Regarding **claim 19**, "the apparatus wherein the controller comprises: a

command interpreter for generating commands for controlling replay, recording,

nonlinear video browsing and indexing to provide functions of recording, index

generation, replay and dynamic search" Iggulden discloses (col.11, lines 20-28)

that the operator command allows the viewer to control all the functions which

are on remote control unit such as forward/rewind, record selected commercials.

As to "a record controller for stroing the video contents in the media

storage unit" Iggulden discloses (col.20, lines 13-16) that the control unit to

determine if an operator command thru remote control hs been sent to store the

current segment.

As to "a replay controller for outputting the video contents to the output

unit, replaying contents of an entire video, and providing a nonlinear video

browsing function and fast-forward/fast-rewind functions" Iggulden discloses

(col.9, lines 55-59; col.25, lines 46-65) that the remote control device controls

pause, fast forward, rewind, and sends output to monitor.

As to "an index manager for delivering storage information on the video contents to the replay controller to provide the fast-forward/fast-rewind functions, and providing the shot index information to the replay controller" Iggulden '091discloses (col.6, lines 61-66) that the analyzed data with classification information for the video signal is stored in memory so that control signals can be generated for controlling the VCR. In addition, same motivation is used as to reject claim 18.

Regarding **claim 20**, "the method wherein the video contents are replayed at a normal speed in the normal replay section and at a high speed in the fast forward replay section" Iggulden discloses (col.5, lines 4-45) that the device playback broadcast program (normal speed); when it detects commercial, it begins playback skip (high speed) and when it determines the end of commercial, it resumes playback of broadcast program (normal speed) as represented in Fig. 19 (elements 526, 544, 546). Also, it's inherent that when the system is skipping a program/commercial, the skipping speed is higher/faster than the normal play speed.

Regarding **claim 21**, "the apparatus wherein the video contents are replayed at a normal speed in the normal replay section and at a high speed in the fast forward replay section" Iggulden discloses (col.5, lines 4-45) that the device playback broadcast program (normal speed); when it detects commercial,

it begins playback skip (high speed) and when it determines the end of
commercial, it resumes playback of broadcast program (normal speed) as
represented in Fig. 19 (elements 526, 544, 546). Also, it's inherent that when the
system is skipping a program/commercial, the skipping speed is higher/faster
than the normal play speed.

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to PINKAL CHOKSHI whose telephone number is (571)
270-3317. The examiner can normally be reached on Monday-Friday 8 - 5 pm (Alt.
Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Brian Pendleton can be reached on 571-272-7527. The fax phone number
for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pinkal Chokshi/
Examiner, Art Unit 2425

/Brian T. Pendleton/
Supervisory Patent Examiner, Art Unit 2425